

AMENDMENT UNDER 37 C.F.R. §1.111
US Application No. 10/032,098
Attorney Docket No. Q67557

REMARKS

General remarks.

Applicant has carefully studied the outstanding Official Action in the present application. The present amendment is intended to be fully responsive to all points of rejection raised by the Examiner in the Office Action mailed March 1, 2004, and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of all claims under consideration is respectfully requested.

Claims 1 – 23 are pending in the application. In accordance with Applicant's election without traverse of Group I (claims 1 – 23), claims 24 – 33 are canceled without prejudice or disclaimer. Claims 1, 10 - 18 are currently amended. Claims 11 – 18 have been amended to more clearly define the subject matter claimed.

Applicant has amended Paragraphs [0003], [0093] and [0096] of the written description have been amended to insert appropriate patent numbers and to amend a typographical error. No new matter is added.

Claims Rejections

Claims 1 – 2 and 10 – 11 stand rejected under 35 U.S.C. 102(b) as being anticipated by Takagi et al. (U.S. 5,166,985). Claims 3 – 9 and 12 - 23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al. (U.S. 5,166,985) in view of Chiu et al. (U.S. 4,677,302) and further in view of Hara et al. (U.S. 4,692,690).

Applicants respectfully traverse the above rejection as applied to each rejected claim.

Takagi et al. describes a method and apparatus for inspecting the surface pattern of an object, particularly suitable for inspecting solder joints.

Chiu et al. describes an optical system for inspecting printed circuit boards wherein a ramp filter is disposed between a reflected beam and a photodetector.

Hara et al. describes a pattern detecting apparatus employing a reflected image and a fluorescent image.

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Claim 1, as now amended, requires:

a conductor defect analyzer receiving said first attribute information and said second attribute information, and evaluating a combination of said first attribute information and said second attribute information to determine the presence of a conductor defect at said conductor location, said conductor defect being indicated in said first attribute information, and further indicated in said second attribute information.

Claim 10, as now amended, requires:

determining a conductor defect at one or more of said conductor locations based on a combination of said first attribute information and said second attribute information, said conductor defect being indicated in said first attribute information and further indicated in said second attribute information.

As noted above, Takagi et al. describes a method and apparatus for inspecting surface patterns of an object. The method and apparatus of Takagi employs an upper light suitable for inspecting flat portions, and a lower light suitable for inspecting inclined portions of a solder joint. The upper and lower lights may be in different emission frequencies.

Chiu et al. shows and describes an optical system for inspecting printed circuit boards. Chiu is suitable for determining a top width dimension of an electrical component.

Hara et al. describes a pattern inspection apparatus employing a reflectance image and a fluorescence image. Defects correspond to those areas of a wiring pattern which exist in one image but not the other.

Nothing, however, in Takagi or the other cited prior art shows or suggests a conductor defect being indicated in the first attribute information and further indicated in the second attribute information. Even taken for what they would have meant as a whole to an artisan of

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ordinary skill, the combined teachings of these three references would not have (and could not have) led such a person to the subject matter of either of claims 1 or 10, or any of their respective dependent claims 2-9 and 11-23. In view of the foregoing, Applicant respectfully submits that claims 1 and 10, as amended, are patentable over Takagi et al., alone or in combination with the other cited prior art, and favorable reconsideration is respectfully requested. Applicants respectfully request that the Examiner withdraw the rejection of claims 2 – 9 and 11 – 23.

Conclusion and Request for Interview

In view of the foregoing, this application is believed to be in order. Reconsideration and allowance of this application are respectfully solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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Date: August 2, 2004